



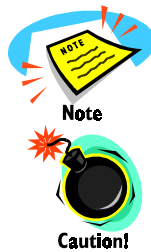
# Step 5: Determine Schedule and Workarounds for Critical Functions

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## Objectives

In **Step 5** you will:

- ▶ Create potential Year 2000 failure scenarios for each element of your critical functions,
- ▶ Develop a workaround plan to keep your business running in response to each Year 2000 failure scenario for each of your critical business functions, and
- ▶ Create a schedule for putting your alternative solutions in place as far in advance of January 1, 2000, as necessary.



**Workarounds vs. Fixes:** January 1, 2000 is fast approaching and it is imperative that all your workarounds are planned and completed before that day arrives. Even if all of your Year 2000 fixes are made before January 1, 2000, there is no absolute guarantee that they were made correctly or that something over which you have no control—such as electricity—will be uninterrupted. *If your workarounds are planned and provided for now, any failures on January 1, 2000 can be overcome.* **Now** is the time to budget your resources to ensure that all your workarounds are planned and provided for rather than proceeding to the fixes at the expense of your workarounds.

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## Overview

Using your completed two-part **Critical Function Breakdown Worksheet** in **Step 3** on **page 3-5**, you will now plan for possible Year 2000-related *failure scenarios* and plan alternate solutions, called *workarounds*.

The second part of the **Critical Function Breakdown Worksheet** will provide a breakdown of each of your critical business function elements into three category areas—*computer systems, embedded chips, or services*—where you might have a Year 2000-related problem. In **Step 5**, you are provided with example data. Using the information described above you will complete a **Potential Failure Scenario Workaround Plan Worksheet** for each of your critical business functions.

## Potential Failure Scenario Workaround Plan

The following section is organized by three categories:

1. Computer Systems (divided into hardware and software),
2. Embedded Chips, and
3. Services.



Tips and Hints

Sample data is provided for each of the above categories for you to review. Refer to **Table 5-1: Directory of Sample Data Tables for Step 5**, below.



Perform a Task

After reviewing the sample data, you will complete a **Potential Failure Scenario Workaround Plan Worksheet** located on **page 5-8** for each category listed above. (More information about these categories is available in **Step 4** on **page 4-2**.)

1. Choose your critical functions that relate to **computers**, **embedded chips**, or **services** and all of the elements that might be a part of these critical functions.
2. Enter those critical functions and related elements into **Part 1** of the **Potential Failure Scenario Workaround Plan Worksheet** and check either the computer system, embedded chip, or service checkbox. Then, list any scenarios (things that could happen), which might cause these critical functions to fail.
3. Determine a solution for getting around the problem (Plan B or workaround) for all of the scenarios you have identified. Add your workarounds to **Part 2** of the worksheet. List whether your solution is completed or not, provide a schedule for completion, and keep any other notes necessary to document your progress.

Refer to **Table 5-1** for a listing of each **Potential Failure Scenario Workaround Plan Sample Worksheet** presented in **Step 5**.

**Table 5-1: Directory of Sample Worksheets for Step 5**

Table	Category Topic	page	Content Synopsis
5-2	Computer Systems Hardware	5-3	Provides four potential failure scenarios for hardware associated with payroll critical function; provides workaround solutions and schedule milestones.
5-3	Computer Systems Software	5-5	Provides two potential failure scenarios for software associated with payroll critical function; provides workaround solutions and schedule milestones.
5-4	Embedded Chips	5-6	Provides potential failure scenario for embedded chips associated with heat and air conditioning function; provides workaround solution and schedule milestones.
5-5	Services	5-7	Provides three potential failure scenarios for services associated with heat and air conditioning and payroll critical functions; provides workaround solutions and schedule milestones.

**Table 5-2: Potential Failure Scenario Workaround Plan Sample Worksheet****Check One:** ☒ Computer Systems ☐ Embedded Chips ☐ Services

<b>Critical Function: Payroll</b>				
<b>Part I: Fill out first:</b>		<b>Part 2: Fill out second:</b>		
<b>Critical Function Failure Scenario</b>		<b>Workaround Plan and Schedule</b>		
<b>Element</b>	<b>Potential Failure Scenario</b>	<b>Workaround and Milestones</b>	<b>Completed?</b>	<b>Comments and Tracking</b>
<b>Personal Computer</b>	<b>Scenario 1:</b> PC Clock has been affected by Year 2000. This will be evident when the PC does not show the correct date when booted on or after January 1, 2000. Dates used by applications will be incorrect.	If necessary, the date can be reset each time the computer is rebooted. No prior workaround necessary.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	This will provide no difficulty since the internal date can be reset each time the computer is rebooted.
<b>Personal Computer</b>	<b>Scenario 2:</b> PC does not boot up because BIOS is not Y2K compliant. All data, forms, applications on the PC are not accessible.	1. By <i>December 1999</i> , print all forms that might be necessary to fill out to continue business. 2. By <i>December 1999</i> , print all data from any data files that contain data that must be referenced to continue operations. 3. By <i>December 1999</i> , ensure staff is trained to: <ul style="list-style-type: none"> <li>a. Manually fill out forms,</li> <li>b. Find the correct data from the printed copy for use in processing, and</li> <li>c. Carry out processing for each critical business function manually.</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	All forms and data are ready for manual processing.  Staff training must be scheduled.
<b>Check Writer Machine</b>	<b>Scenario 1:</b> Computer out of service for any reason, therefore, Check Writer not working.	Have paper checks on hand so checks can be written and signed manually.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Blank checks are on hand in sufficient quantity to last three months.
<b>Check Writer Machine</b>	<b>Scenario 2:</b> Check Writer machine out of service for any reason, therefore, checks cannot be printed.	Have paper checks on hand so checks can be written and signed manually.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Blank checks are on hand in sufficient quantity to last three months.

**Table 5-3: Potential Failure Scenario Workaround Plan Sample Worksheet**Check One: ☒ Computer Systems ☐ Embedded Chips ☐ Services

<b>Critical Function: Payroll</b>				
<b>Part I: Fill out first:</b>		<b>Part 2: Fill out second:</b>		
<b>Critical Function Failure Scenario</b>		<b>Workaround Plan and Schedule</b>		
<b>Element</b>	<b>Potential Failure Scenario</b>	<b>Workaround and Milestones</b>	<b>Completed?</b>	<b>Comments and Tracking</b>
<b>Computer Operating System (Winters 94)</b>	<b>Scenario 1:</b> Operating System failed for any reason. PC cannot be used.	1. By <i>December 1999</i> , print all forms that might be necessary to fill out to continue business. 2. By <i>December 1999</i> , print all data from any data files that contain data that must be referenced to continue operations. 3. By <i>December 1999</i> , ensure staff is trained to: a. Manually fill out forms, b. Find the correct data from the printed copy for use in processing, and c. Carry out processing for each critical business function manually.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	All forms and data are ready for manual processing.  Staff training must be scheduled.
<b>Home-Grown Withholding Reporting Software</b>	<b>Scenario 1:</b> Software fails for any number of reasons; PC not working, no electricity, etc.	1. By <i>December 1999</i> , print all forms that might be necessary to fill out to continue business. 2. By <i>December 1999</i> , print all data from any data files that contain information that must be referenced to continue operations. 3. By <i>December 1999</i> , ensure staff is trained to: a. Manually fill out forms, b. Find the correct data from the printed copy for use in processing, and c. Carry out processing for each critical business function manually.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	All forms and data are ready for manual processing.  Banking forms are on hand to make necessary deposits to correct accounts.  Staff Training must be scheduled.

Table 5-4: Potential Failure Scenario Workaround Plan Sample Worksheet

Check One: ☐ Computer Systems ☒ Embedded Chips ☐ Services

Critical Function: Heat & Air Conditioning				
Part 1: Fill out first:		Part 2: Fill out second:		
Critical Function Failure Scenario		Workaround Plan and Schedule		
Element	Potential Failure Scenario	Workaround Milestones	Completed?	Comments and Tracking
Thermostat, Actuators, Emergency Cut-off, Flowmeter, Carbon Dioxide Monitor	<b>Scenario 1:</b> Heat goes out because any elements fail or other reason outside of our control.	1. By <i>October 1999</i> , call local government body and/or local Red Cross and ask them what they are doing to prepare for Year 2000 and where residents who are in need of heat can be sent. Ask them where the closest generator-operated shelter is located.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Red Cross provided names of local shelters and a preparedness list for residents.
		2. By <i>November 1999</i> , notify residents by letter of potential problems with heat and of the need of blankets if heat fails. (A <i>sample letter</i> can be found on workbook <b>page 1-5.</b> )	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Resident letter was mailed on <i>March 20, 1999</i> .
	.	3. Buy blankets by <i>November 1999</i> for residents who may not have enough blankets.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	A closet containing extra supplies will be located in the manager's office and will be ready by <i>September 10, 1999</i> .

**Table 5-5: Potential Failure Scenario Workaround Plan Sample Worksheet****Check One:** ☐ Computer Systems ☐ Embedded Chips ☒ Services**Critical Function: Heat & Air Conditioning**

Part 1: Fill out first:		Part 2: Fill out second:		
Critical Function Failure Scenario		Workaround Plan and Schedule		
Element	Potential Failure Scenario	Workaround Milestones	Completed?	Comments and Tracking
<b>Fuel Source (Natural Gas)</b>	<b>Scenario 1:</b> Gas heat is no longer available because of a local power outage, which has also caused a disruption in the transportation of supplies required for oil heating.	By November 1999, check with the local Red Cross to find out what shelters will be available and where they are located. Suggest the resident representative make a plan to check on the infirm and elderly.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	As of March, 4 1999, have only one volunteer. Will hold a resident meeting on June 10, 1999, to enlist more help.
	<b>Scenario 2:</b> The heat is turned off in the bldg. because the heating company's computer record shows non-payment of the monthly bill since 1900.	By November 1999, check with the local Red Cross to find out what shelters will be available and where they are located. Suggest the resident representative make a plan to check on the infirm and elderly.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	As of March, 4 1999, have only one volunteer. Will hold a resident meeting on June 10, 1999, to enlist more help.
<b>Power Source</b>	<b>Scenario 1:</b> If power source is out of service for any reason, heat and air conditioning will not function.	By November 1999, check with the local Red Cross to find out what shelters will be available and where they are located. Suggest the resident representative make a plan to check on the infirm and elderly.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	As of March, 4 1999, have only one volunteer. Will hold a resident meeting on June 10, 1999, to enlist more help.

**Table 5-6: Potential Failure Scenario Workaround Plan Sample Worksheet**Check One: ☐ Computer Systems ☐ Embedded Chips ☒ Services

<b>Critical Function: Payroll</b>				
<b>Part I: Fill out first:</b>		<b>Part 2: Fill out second:</b>		
<b>Critical Function Failure Scenario</b>		<b>Workaround Plan and Schedule</b>		
<b>Element</b>	<b>Potential Failure Scenario</b>	<b>Workaround Milestones</b>	<b>Completed?</b>	<b>Comments and Tracking</b>
<b>Payroll Application Program</b>	<b>Scenario 2:</b> Any number of reasons has caused all elements of the payroll process to stop. This includes banking, computer services, and automatic tellers.	By November 1999, have an adequate supply of blank checks to write out payroll checks and have some extra money on hand in petty cash fund.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will order checks by June 1999. Should have order not later than 15 days after ordered.

# Potential Failure Scenario Workaround Plan Worksheet

**Directions:** Choose your critical functions and any elements into which these functions might be broken down. Enter those into **Part 1**. Then, list any scenarios (things that could happen), which might cause these critical functions to fail. Next, add workarounds and milestones to **Part 2** of the worksheet. Determine a solution for getting around the problem

(workaround) for all of the scenarios you have identified, list whether your solution is completed or not, and provide a schedule with milestones for completion, in addition to any other comments necessary to track and document your progress.

Check One:   ☐ Computer Systems   ☐ Embedded Chips   ☐ Services

Critical Function:				
Part 1: Fill out first:		Part 2: Fill out second:		
Critical Function Failure Scenario		Workaround Plan and Schedule		
Element	Potential Failure Scenario	Workaround Milestones	Completed?	Comments and Tracking
			<input type="checkbox"/> Yes <input type="checkbox"/> No	
			<input type="checkbox"/> Yes <input type="checkbox"/> No	
			<input type="checkbox"/> Yes <input type="checkbox"/> No	
			<input type="checkbox"/> Yes <input type="checkbox"/> No	
			<input type="checkbox"/> Yes <input type="checkbox"/> No	
			<input type="checkbox"/> Yes <input type="checkbox"/> No	